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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,609	12/31/2003	Wen Fu Peng	3670-P-14423	2450

7590
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07/12/2007

EXAMINER

SHAH, PARAS D

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/751,609

Applicant(s)

PENG, WEN FU

Examiner

Paras Shah

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/31/2003
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This communication is in response to the Application filed on 12/31/2003. Claims 1-24 are pending and have been examined.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 12/31/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7, and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (US 2004/0215445) in view of Rtischev *et al.* (US 5,634,086).

As to claim 1, Kojima discloses an interactive language learning method capable of speech recognition, the method at least comprising the following steps:

accessing and playing language voice data (see [0022] and [0007]) (e.g. In this cited section the user is presented with a word or words, depending on skill);

inputting a user's practice voice signal (see Figure 2, element S18 and [0023]) (e.g. The user is asked to input the model.) and

comparing the speech recognition data and the language voice data to generate a similarity value, wherein according to the similarity value, correctness of the user's practice voice signal is determined (see [0024 and Figure 2, elements S20 and S22) (e.g. Depending on the similarity value, the correctness of the user input is determined).

However, Kojima does not specifically disclose the use of speech recognition on the input voice signal.

Rtischev *et al.* does disclose the use of speech recognition on a voice signal (see abstract).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the interactive language learning taught by Kojima with the inclusion of speech recognition taught by Rtischev *et al.* The motivation to have included the speech recognition element is to further evaluate the user in language fluency and language instruction (see Rtischev *et al.* col. 2, lines 64-66) as would benefit the teachings of Kojima to evaluate language as well as pronunciation.

As to claim 2, Rtischev *et al.* discloses wherein before the step of accessing the language voice data, the method further comprises the step of:

setting a language-learning mode to be a repetition mode or a conversation mode (e.g. see col. 3, line 55) (e.g. It is seen that a conversation mode can be set from the two modes of the system (see col. 8, lines 1-3). It is implied that the mode be set in order to compare valid answers (see col. 8, lines 17-24)).

As to claim 3, Kojima discloses wherein in the step of accessing the language voice data, any language voice data are accessed from a data storage medium (see [0009]) (e.g. A program is recorded on a medium and reads out data from a database, which implies the reference data being stored in a data storage medium.)

As to claim 4, Kojima discloses wherein in the step of accessing the language voice data, some language voice data are accessed from the data storage medium one-by-one according to the course schedule (see [0010]) (e.g. Depending on the user level, there are corresponding reference data. Hence, it is inherent that depending on the user selected level or results from previous level, the data of the reference voice of that level will be accessed as seen [0009]).

As to claim 7, Kojima discloses wherein the step of playing the language voice data, a speaker is used for playing the language voice data (see [0022]).

As to claim 12, Kojima discloses wherein a microphone is used for inputting the user's practice voice signal (see [0019]).

As to claim 13, Rtishchev *et al.* discloses wherein

the language voice data is a question and an answer, the question is used for playing (see col. 3, lines 16-17), and the answer is used for comparison with the user's practice voice signal (see col. 3, lines 17-21) (e.g. The system asks the user a question and then an answer is received and compared).

As to claims 14 and 15, Kojima discloses

the use of English or Chinese language (see [0030], lines 20-21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a questions and answers depending on the language to be learned (see [0002]).

As to claim 16, Rtischev *et al.* discloses wherein

the step of performing speech recognition on the practice voice signal, the following steps are further comprised: transforming the practice voice signal into

a speech waveform (see col. 5, lines 47-56) (e.g. The use of Hidden Markov Models implies the use of the speech signal or waveform); and accessing at least one characteristic parameter value from the speech waveform to generate speech recognition data (see col. 5, lines 56-60) (e.g. The HMM models evaluate the characteristics of the speech signal, which in this case is the hidden Markov models of native speakers (see col. 3, line 26)).

As to claim 17, Rtischev *et al.* discloses wherein the step of performing speech recognition on the practice voice signal, the following steps are further comprised:

transforming the practice voice signal into a speech waveform (see col. 5, lines 47-56).

Kojima discloses

accessing at least one characteristic parameter value from each of the speech waveforms and then determining whether the characteristic parameter values are similar to each other to generate a similarity value (see [0009]) (e.g. It is seen in the Kojima reference that the pronunciation is interpreted to be a characteristic and is compared to the stored reference data with the user information.

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the interactive language learning taught by Kojima with a characteristic comparator for determining similarity along with the transformation of speech into a waveform as taught by Rtischev *et al.* for the

purpose of finding the user's status of learning for the language skill (see Kojima, Abstract).

As to claim 18 and 19, Kojima discloses wherein after the step of comparing the speech recognition data and the language voice data (see Figure 2, elements S18 and S20), the method further comprises:

comparing the similarity value and a predetermined adjustment value (see [0025]);

finishing the language learning if the similarity value is higher than the predetermined adjustment value (see [0025] and Figure 2, elements S22, S24, S26, and S28) (e.g. From the cited portions, it is evident that the language learning is finished for that particular lesson once the similarity is a success. Once all lessons are done, the learning has been completed); and

generating an error message to ask the user to re-input the practice voice signal if the similarity value is lower than the predetermined adjustment value (see 0025 and Figure 2, element S22 and S16). Form the cited portions, it is seen that an error message has been interpreted to be the same as that of the reference, where if the passing mark is not met then the user repeats the lesson and would be apparent in Figure 3 and [0020] (e.g. where the heart indicates whether there is good pronunciation). Further in reference to claim 19, the similarity ratio is being compared to a correctness depending on user skill (see [0029] (e.g. The similarity is determined depending on level chosen (e.g.

beginner, intermediate , and advanced, which is similar to high/middle/low) and the similarity will be calculated.)

As to claims 20, Kojima discloses wherein after the step of comparing the speech recognition data and the language voice data, the method further comprises

a step of storing a correct/erroneous record of the language voice data practiced by the user (e.g. It is inherent in the Kojima reference that the correctness and errors are stored since the values determine if there was success in the level, text, and lesson as shown in Figure 2, elements S24, S26, and S28 and see [0025]-[0028]), and recording a serial number (e.g. Due to the storing then a number is associated such as the date and file name), number of practices, or practice time of the language voice data (see [0020], line13) (e.g. The number of practices are displayed on the screen).

5. Claims 5, 6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (US 2004/0215445) in view of Rtischev *et al.* (US 5,634,086) as applied to claim 1 above, and further in view of Smart (US 4,170,834).

As to claim 5, Kojima and Rtischev *et al.* do not specifically disclose the language data comprising a first speech and a second speech, which is the translation of the first speech.

However, Smart does disclose the playback of a first speech and a second speech, which is a translation of the first (see col. 7, lines 28-31).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the interactive learning taught by Kojima and Rtischev *et al.* with the inclusion of playback of the source and target language taught by Smart. The motivation to have combined the references involves producing correct expressions in the foreign language for word distinguishing (see Smart col. 7, lines 28-31 and col. 1, lines 42-51) as would benefit the teachings of Kojima and Rtischev *et al.* for pronunciation and language fluency.

As to claim 6, Kojima and Rtischev *et al.* discloses the use of the languages English and Chinese (see Kojima, [0030], lines 20-21).

However, Kojima and Rtischev *et al.* does not specifically disclose the first speech being in English and the second speech in Chinese.

Smart does disclose the playback of a first speech and the translation of the first speech into the second language (see 7, lines 28-31).

It would have been obvious to one of ordinary skilled in the art to have modified the languages taught by Kojima and Rtischev *et al.* in the interactive language learning to include a first speech in one language and a second speech in an another taught by Smart for the purposes of language learning (see Smart col. 1, lines 8-10).

As to claim 8, Kojima and Rtischev *et al.* do not specifically disclose the language data comprising a first speech and a second speech.

However, Smart does disclose the playback of a first speech and then the second speech, which is a translation of the first (see col. 7, lines 28-31).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the interactive language learning taught by Kojima and Rtischev *et al.* with the inclusion of playback of the source and target language taught by Smart. Further, the order of playback, where the translated portion is played before the source language, would have been obvious since the presentation order would have the same result. The motivation to have combined the references involves producing correct expressions in the foreign language for word distinguishing (see Smart col. 7, lines 28-31 and col. 1, lines 42-51) as would benefit the teachings of Kojima and Rtischev *et al.* for pronunciation and language fluency.

As to claim 9, Kojima discloses the use of the languages English and Chinese (see [0030], lines 20-21).

However, Kojima and Rtischev *et al.* does not specifically disclose the first speech being in English and the second speech in Chinese.

Smart does disclose the playback of a first speech and the translation of the first speech into the second language (see 7, lines 28-31).

]It would have been obvious to one of ordinary skilled in the art to have modified the languages used taught by Kojima and Rtischev *et al.* in the interactive language learning to include a first speech in one language and a second speech in an another taught by Smart for the purposes of language learning (see Smart col. 1, lines 8-10).

6. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (US 2004/0215445) in view of Rtischev *et al.* (US 5,634,086) as applied to claim 1 above, and further in view of Guangming (US 6,438,524).

As to claims 10 and 11, Kojima and Rtischev *et al.* do not specifically disclose the waiting for a period; and playing the language repeatedly if the user does not input the practice voice signal in the period, which is 5 seconds.

However, Guangming does disclose the prompting (e.g. which is playing) of the message when no input is detected for a certain amount of time (see col. 7, lines 56-col. 7, line 11). Further, the time limit of 5 seconds could have been incorporated into the system for the time period prior to the timeout period when no speech is detected.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the interactive language learning taught by Kojima and Rtischev *et al.* with the inclusion of the repeating prompt when no user input is detected as taught by Guangming. The motivation to have combined the references involves acquiring the user input when no input is detected (see

Guangming col. 7, lines 56-col. 7, line 11) to continue with the language learning as taught by Kojima and Rtischev *et al.*

7. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (US 2004/0215445) in view of Rtischev *et al.* (US 5,634,086) as applied to claim 20 above, and further in view of Budra *et al.* (US 2002/0076675).

As to claim 21, Kojima and Rtischev do not specifically disclose the displaying of grades through a display device.

However, Budra *et al.* does disclose the displaying of the grade (see [0180]) (e.g. A score is outputted to user of his/her result. through a display device (see [0073]) (e.g. the use of a monitor). It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the interactive language learning taught by Kojima and Rtischev *et al.* with the inclusion of the displaying of grades as taught by Budra *et al.* for the purposes of indicating student performance (see Budra *et al.*, [0180]), which would have benefited the teachings of Kojima for indicating user pronunciation and language scores.

8. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (US 2004/0215445) in view of Rtischev *et al.* (US 5,634,086) in view of Budra *et al.* (US 2002/0076675) as applied to claim 21 above, and further in view of Meimer (US 2002/0115048).

As to claim 22 and 23, Kojima and Rtischev do not specifically disclose the use of reference data for repeated practice in the future.

However, Meimer does disclose where the questions with the most errors are repeated from one day to another (see [0043], [0065] and [0068]) (e.g. Both show two specific days for which the questions, which were incorrect are repeated. These questions are saved and each file being saved will have an identification number as reference (see [0011]).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the interactive language learning taught by Kojima and Rtischev *et al.* and Budra *et al.* with the inclusion of repeating the practice with more errors taught by Meimer. The motivation to have combined the references involve the ability for the user to answer all of the questions correctly (see Meimer, [0010]) as would benefit the teachings of Kojima for user learning of pronunciation and language until pronounced correctly.

As to claim 24, Meimer discloses

the indicating the test time spent for each question (see [0061]) and the priority for presenting questions missed (see [0065]) It would have been obvious to one of ordinary skilled in the art to have a priority based upon the longer time spent for the purposes of having the user answer the questions quickly and correctly (see [0010]).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Stentiford (US 5,503,560) is cited to disclose interactive dialogue language training. August *et al.* (US 7149690) is cited to disclose interactive learning language instructing a user to the language spoken by the audible speech. Gupta *et al.* (US 2004/0006461) is cited to disclose generating pronunciation scores from user data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paras Shah whose telephone number is (571)270-1650. The examiner can normally be reached on MON.-THURS. 7:30a.m.-4:00p.m. EST.

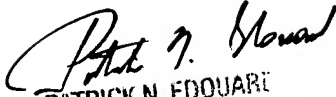
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571)272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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